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Terms, definitions and abbreviated terms

List of project participants

Participant organisation name	Country
Polytechnic Institute of Setúbal (IPS)	PT
St. Pölten University of Applied Sciences (STPUAS)	AT
Hungarian University of Agriculture and Life Sciences (MATE)	HU
Politehnica University of Timisoara (UPT)	RO
University Colleges Leuven Limburg (UCLL)	BE
Vidzeme University of Applied Sciences (ViA)	LV

Abbreviated terms

AI – Artificial Intelligence

BOHEMIA – Beyond the Horizon: foresight in support of future EU research and innovation policy

CoARA – Coalition for Advancing Research Assessment

DC – Direct current

E³UDRES² – Engaged European Entrepreneurial University as Driver for European Smart and Sustainable Regions

EC – European Commission

E.I.N.S. – E³UDRES² Entrepreneurship and Innovation Network for Smart and Sustainable European Regions

EIT – European Institute of Innovation and Technology

EU – European Union

FAO – Food and Agriculture Organization

HEI – Higher education institutions

R&I – Research and Innovation

REA – European Research Executive Agency

SDG – Sustainable Development Goals

SciVal – Research performance assessment tool (analysis of the data from Scopus)

Scopus – Abstract and indexing database with full-text links (produced by the Elsevier Co)

STEM – Science, Technology, Engineering, and Math

STEEP – Social, Technological, Economic, Ecological (Environmental) and Political

UN – United Nations

VR – Virtual Reality

WP – Work Package

Executive Summary

This deliverable presents the results of analysis of the E³UDRES² alliance R&I landscape after two years of collaboration, reporting the work developed in tasks 2.1 and 2.2. It summarizes several analysis done in Work Package 2 “Research and Innovation Strategy”.

Starting point of the analysis are the already existing E³UDRES² research networks and the E.I.N.S. Open Innovation Hubs. As the E³UDRES² alliance meanwhile has reviewed the topics covered in the research networks and identified new focus areas, the new focus areas are also covered within this analysis.

In order to analyse the collaboration, the focus is led on 3 dimensions:

- Dimension 1: Topics
- Dimension 2: Expertise
- Dimension 3: Collaboration

Different methods to analyse the dimensions above were used, such as literature review, data analysis (bank of researchers and publications) and review of deliverables.

The E³UDRES² alliance addresses the major topics identified in relevant EU policy and UN SDG documents. However, some of the core topics in EU missions, such as cancer research, is not covered within the E³UDRES² topics as there is a lack of expertise in the medical sciences. The analysis of the expertise shows that there is wide range of experts from different fields involved in the E³UDRES² research networks. The results of the analysis of the bank of researchers shows that there are experts in all research networks. However, there is still potential to rise the number of participating researchers. Analysing the expertise based on publications of the E³UDRES² institutions shows that there is a link between the clusters of publication and the topics addressed in the research networks and E.I.N.S. Open Innovation Hubs.

The E³UDRES² alliance offers a wide range of opportunity of (cross-institutional and cross-discipline) collaboration, which is also a key value of the E³UDRES² mission.

1 General description of E³UDRES²

E³UDRES² - the Engaged and Entrepreneurial European University as Driver for Smart and Sustainable Regions is an alliance founded by 6 higher education institutions in Europe in 2020. It aims to set up a fully-fledged European multi-university campus by implementing co-creation, co-ideation and co-innovation formats to overcome the challenges for smart and sustainable regions.

The founding partners of the alliance are:

- St. Pölten University of Applied Sciences (STPUAS)
- Hungarian University of Agriculture and Life Sciences (MATE)
- Polytechnic Institute of Setúbal (IPS)
- Politehnica University of Timisoara (UPT)
- University Colleges Leuven Limburg (UCLL)
- Vidzeme University of Applied Sciences (ViA)

All partners are either Universities of Applied Sciences or research universities with a special focus on applied research. The institutions are not located in the respective capital of their country, but are anchored in the respective region.

The setting up of the alliance is mainly funded by the Erasmus+ Programme of the European Commission under the grant agreement number 101004069.

Since the start of the collaboration of the alliance in 2020, 4 additional projects within the alliance were approved by the funding agencies and 3 have already started within the first two years of collaboration.

For this analysis, beside the initial Erasmus+ funded project, the EIT funded project “E.I.N.S.” (grant agreement number 10043) will be included.

1.1 Research Networks

In the first two years of collaboration, the E³UDRES² alliance has established 3 research networks. Those 3 research networks are on the intersections of the interdisciplinary research expertise of the 6 founding partners of the E³UDRES² alliance.

The 3 research networks are:

- Wellbeing and Active-Ageing:
- Circular Economy
- Human Contribution to Artificial Intelligence

According to the self-description of the alliance, the goals of the research networks are the following:

1.1.1 Wellbeing and Active-Ageing

“The ultimate goal of this research topic is to close the gap between life expectancy and years lived with disability. The Well-being and Ageing Network has established four main lines of common interest. Combined they intend to contribute with innovative solutions to the prevention of functional decline (while promoting functional ability) of the individuals to be as able-bodied as possible throughout their lifespan. These lines are:

- Functional longevity
- Proactive health and well-being management
- Productive and positive Ageing
- Ageing in place”¹

The research network wellbeing and Active-Ageing has developed the internal project Multi “Virtual Gym” to facilitate the cross-institutional collaboration.

1.1.2 Circular Economy

“The goal of this research topic is to contribute to a transformation of our currently linear (take-make-consume-throw away) economy into a circular one (take-make-consume-remake). The Circular Economy Network has established a number of fields of common interest, which all intend to contribute create circular economic processes to reduce waste to a minimum, save raw materials, and reduce the pressure on the environment:

- Water reuse
- Material recovery
- Waste Management
- Energy reduction
- Food supply”²

The research network circular economy has developed the internal project “change Corner” in order to facilitate the cross-institutional collaboration.

1.1.3 Human contribution to Artificial Intelligence

“This network aims at decreasing the barriers of using Artificial Intelligence (AI) technologies in various areas of our life by increasing the interaction between humans and the AI. This involves aspects of explainability and trustworthiness, as well as technical barriers like data availability and quality. The Human Contribution to AI Network has identified the following common areas of interest:

¹ E³UDRES² Alliance (no date): *RESEARCH AT E³UDRES²*. <https://eudres.eu/what-we-do> (retrieved on 2023, September 20)

² E³UDRES² Alliance (no date): *RESEARCH AT E³UDRES²*. <https://eudres.eu/what-we-do> (retrieved on 2023, September 20)

- Virtual Reality (VR) and AI in active living and active aging
- Challenges in agriculture, with a focus on viticulture
- Trustworthy data sharing among companies
- Utility, waste, and related challenges in smart cities
- Prediction of “moral behaviour”, e.g., in law enforcement”³

The research network Human contribution to artificial intelligence has developed the internal project Multi SENS²E” in order to facilitate the cross-institutional collaboration.

All research networks have submitted at least one project proposal but non successful so far. A more detailed analysis of the project proposals will be provided in chapter 5.1, in the analysis of the joint (research) proposals.

1.1.4 New focus areas in E³UDRES² 2.0

In the progress of the preparation of the next phase of the E³UDRES² alliance, the alliance has evaluated the already established topics and updated them. The focus areas for the next phase of E³UDRES² will be focusing on:

- Health, Wellbeing and Social Inclusion for Regions
- Digital Solutions and (Applied) Deep Tech for Regions
- Resilient Economy and Innovation for Regions
- Creative Industries for Region's Identity⁴

1.2 E.I.N.S. Open Innovation Hubs

The E.I.N.S. Open Innovation Hubs are established in the context of the project “E.I.N.S. – E³UDRES² Entrepreneurship and Innovation Network for Smart and Sustainable Regions”.

Within this project, the collaborating partners, which include beside the E³UDRES² founding partners also a non-academic partner, University-Industry-Interaction Network (UIIN) have identified 6 core topics to focus in their Open Innovation Hubs. The topics of the hubs are mainly based on a challenges scan, to identify the relevant RIS priorities in the region. The asset mapping approach offered an overview about the comparative advantages and strengths of the stakeholders within their ecosystem. An ecosystem mapping concludes the analysis prior to the definition of the hub topics. This approach is summarized in deliverable D5.8 of E.I.N.S. Each of the founding partners of E³UDRES² are entitled to lead one of the hubs.

³ E³UDRES² Alliance (no date): *RESEARCH AT E³UDRES²*. <https://eudres.eu/what-we-do> (retrieved on 2023, September 20)

⁴ E³UDRES² Alliance (no date): *Kicking Off The Future of E³UDRES²*. Proposal for E³UDRES² 2.0 Approved by European Commission. <https://eudres.eu/news/kicking-off-the-future-of-eudres-proposal-for-eudres-2-0-approved-by-european-commission> (retrieved on 2023, September 20)

The topics of the E.I.N.S. Open Innovation Hubs are:

- Agrifood (MATE)
- Digital Health & Social Innovation (UCLL)
- Creative Industries & Digital Media (STPUAS)
- Digital Technologies & Advanced Manufacturing (UPT)
- Smart and Sustainable Working and Learning Environments (IPS)
- Smart and Sustainable Cities, Regions and Villages (VIA)

1.2.1 Agrifood

“The E.I.N.S. Open Innovation Hub for Agrifood aims to create connections across the agrifood system to stimulate new ideas and find answers to the biggest agriculture challenges.

Its Hub experts are dedicated to identifying promising ideas, link top talents and open up unique opportunities to drive change in the food value chain. By leveraging its vast network of professionals across multiple segments of the agrifood sector, the Hub has the ability to effectively accelerate the implementation of innovative ideas.

The Hubs five innovation focus areas include:

- Digitalization and smart technologies in the agrifood industry
- Sustainable food production systems and supply chains
- Food security and healthy nutrition
- Climate adaptation, preservation of carbon, water and biodiversity
- Resource efficiency and circular economy”⁵

1.2.2 Digital Health and Social Innovation

“The E.I.N.S. Open Innovation Hub for Digital Health functions as a catalyst for entrepreneurship, innovation and growth in the digital health sector in Flanders and on an European level.

The hub has a facilitating, bridging and accelerating role to develop solutions that improve social welfare through digitalization in Flanders and on an European level.

The hub offers a range of activities in the field of digital health such as networking, matchmaking and support for start-ups. By working in close connection with the thriving ecosystem for innovation and entrepreneurship in its European regions, the hub offers opportunities for knowledge exchange and collaborations between higher education institutes, cities and industry.”⁶

⁵ E.I.N.S. Consortium (no date): E.I.N.S. Open Innovation Hub. Agrifood. https://eudres.eu/eins_hub_agrifood (retrieved on 2023, September 20)

⁶ E.I.N.S. Consortium (no date): E.I.N.S. Open Innovation Hub. Digital Health https://eudres.eu/eins_hub_digital_health (retrieved on 2023, September 20)

1.2.3 Creative Industries & Digital Media

“The E.I.N.S. Open Innovation Hub for Creative Industries & Digital Media functions as a catalyst for creativity, innovation and growth in the creative industries and in the field of digital media in St. Pölten and on a European level.

It offers a range of activities in the field of entrepreneurial education, networking and matchmaking and support for start-ups. The Hub works in close connection with the thriving ecosystem for innovation and entrepreneurship in St. Pölten, offering opportunities for networking between the city of St. Pölten and the St. Pölten University of Applied Sciences. It supports accessing state-of-the-art facilities, training, workshops or hackathons - connects with mentors, provides networking opportunities and resources to support the development of new ideas, products, services and business models.”⁷

1.2.4 Digital Technologies & Advanced Manufacturing

“The E.I.N.S. Open Innovation Hub for Digital Technologies & Advanced Manufacturing at Politehnica University Timisoara aims to intensify talent management activities to fill the knowledge and digital skills gap of various specializations engineers (mechanics, mechatronics, robotics, electrotechnics, electronics, energetics, computer science, civil engineering, chemical engineering etc.).

The Hub scope is to create “bridges of knowledge” via private-public partnerships and collaborations between the different local and regional stakeholders from education, research-development field, industry, services and logistics fields, and local/regional authorities for the development of programmes, capacities, infrastructures, projects and initiatives which will contribute to the accelerated digital transformation of organizational systems.

In this context, experts from the Politehnica University of Timisoara community (including alumni experts), will act as catalysts and facilitators of all Hub’s initiatives. In addition, the Hub’s action plan will focus on digital challenges and problem-based learning approaches (supported by intensive processes of knowledge, innovation and technology transfer) among different stakeholders, to make industry sectors and stronger and more resilient services in the future.”⁸

1.2.5 Smart & Sustainable Working and & Learning Environment

“The E.I.N.S. Open Innovation Hub for Smart and Sustainable Working & Learning Environments at Polytechnic Institute of Setúbal. The Hub is focused on tackling the talent management crisis and functions as a regional catalyst for entrepreneurship, innovation and growth.

⁷ E.I.N.S Consortium (no date): E.I.N.S. Open Innovation Hub. Creative Industries & Digital Media https://eudres.eu/eins_hub_creative_industries (retrieved on 2023, September 20)

⁸ E.I.N.S Consortium (no date): E.I.N.S. Open Innovation Hub. Digital Technologies & Advanced Manufacturing https://eudres.eu/eins_hub_digital_technologies (retrieved on 2023, September 20)

The Hub's goal is to address the lack of leadership skills on the operational level, as well as the lack of innovation transfer and private-public partnerships.”⁹

1.2.6 Smart and Sustainable Cities, Regions and Villages

“The E.I.N.S. Open Innovation Hub for Smart and Sustainable Cities, Regions and Villages at Vidzeme UAS. The Hub focuses strongly on the sustainable development of regions.

The mission of this Open Sustainability Center is to create, accumulate and exchange knowledge and experience for the sustainable development of the region. The vision of the centre is to be a dynamic and accessible place for any member of the community, where solutions are created together through collaboration, experimentation and local and international knowledge.

Vidzeme UAS, together with the Open Innovation Hub, has taken a course towards the development of the region, being the middle point where solutions are created through studies, research and innovation activities and sustainable changes are promoted in the Vidzeme region. The hub promotes entrepreneurial thinking in the community, integrating challenges in the study process, organizes and participates in entrepreneurship activities, as well as offering services within the competence of Vidzeme UAS researchers, cooperation partners and students.”¹⁰

1.3 The E³UDRES² Dimensions

The E³UDRES² alliance has developed several concepts and methodologies to foster co-creation, cross-institutional collaboration in teaching, training and research. Those concepts and methodologies are either developed in E³UDRES² Erasmus+ (E+) or the E.I.N.S. project and used in one or both projects. This analysis will especially focus on the following seven concepts and methodologies:

- Future Casting Regions
- Educational I-Living Lab
- R&I education
- Coaching of further (staff) training
- Research networks/projects
- Open innovation hubs

1.3.1 Future Casting Regions (WP2 of E+)

The concept of future casting was developed in Work Package 2 of the Erasmus+ funded project “E³UDRES²” and is described in Deliverable 11. Based on the review of relevant literature, the core element of the future

⁹ E.I.N.S (no date): E.I.N.S. Open Innovation Hub.Smart and Sustainable Working & Learning Environments
https://eudres.eu/eins_hub_smart_sustainable_working_learning_environments (retrieved on 2023, September 20)

¹⁰ E.I.N.S (no date): E.I.N.S. Open Innovation Hub. Smart and Sustainable Cities, Regions and Villages
https://eudres.eu/eins_hub_smart_cities (retrieved on 2023, September 20)

casting concept are the regional stakeholder workshops. The methodology behind those workshops is based on the Stanford Playbook and mainly uses the context map and Janus cones approach. The future casting concepts were used in workshops with the academic and non-academic staff within the E³UDRES² alliance. In addition to that, each E³UDRES² partner conducted 3 regional stakeholder workshops. The regional stakeholder workshops aim to involve relevant regional partners (companies and businesses, regional development agencies, education, politicians and decision makers, etc.). The results of the regional stakeholder workshops are summarized in the Deliverables 18, 20 and 22.

1.3.2 Educational I-Living Lab (WP3 of E+, WP6 and WP7 of EINS)

The (educational i-living labs are the core element of foster interdisciplinary, intercultural, innovative and challenge-based learning. It is described as “course units in a study programme (or extracurricular course units) in which teams of students set to work on a challenge” (Alliance, www.eudres.eu, 2023). In an I-living lab, student teams (international and cross-institutional and interdisciplinary) as well as educational entrepreneurs (coach) and (external) stakeholders are participating. Two types of I living labs are currently offered:

- Classical i-living lab: 8 week course with additional preparatory and final phases
- Intensive i-living lab: on-site block course with virtual preparatory elements

The core concept was developed in WP3 of the Erasmus+ project. The method itself is also used in WP6 and WP7 of E.I.N.S..

1.3.3 R&I Education (WP4 & WP5 of E+)

Research and innovation education – especially innovation capacity is promoted within the different E³UDRES² activities. Very important activities to promote the R&I education across all degree programmes are the formats of hackathon, bootcamps and iResidency. They are main tasks in WP5 in the Erasmus+ funded project. All those formats have in common that they are promoting challenge-based innovation with a strong collaboration with regional stakeholders. In the first two years of collaboration within the E³UDRES² alliance, 2 hackathons (deliverables 5.2, 5.8, 1 bootcamp (deliverable 5.4) and 1 iResidency (deliverable D5.565) were organized. The second bootcamp as well as the second iResidency took place in year 3 of the alliance, is not covered by the analyse of this project.

1.3.4 Coaching of further (staff) training (WP3 of E+, WP6 and WP7 of EINS)

The Erasmus+ funded project developed new approaches for training and learning in an international and intercultural context with strong challenged-based approaches. In order to implement those new concepts, one important key factor is to train the trainers. Therefore, in deliverable 3.2 a staff training blueprint was developed.

EINS WP6 and WP7 have primarily focused on the continuous training, coaching, and mentoring of academic and non-academic staff and students. The training, mentoring, and coaching programs provided by WP6 have been specifically designed to support creativity, strengthen research collaborations, integrate knowledge and skills, share resources, and enhance innovative and entrepreneurial skills. (a coaching, training and mentoring plan was described in D6.3 of E.I.N.S.). On the other hand, WP7 offers training and mentoring programs tailored towards the practical development of students' knowledge and skills in innovation, entrepreneurship, and digitalization. Between 2022 and 2023, a total of 1,504 students, 950 academics, and 682 non-academic staff received training and coaching services under the two work packages.

1.3.5 Research Networks/projects (WP4 of E+)

See Research Networks.

1.3.6 Open Innovation Hubs (WP5 EINS)

See E.I.N.S. Open Innovation Hubs.

1.3.7 Activities to maximize the societal and economic impact and value of our research results (WP5 of E+ and all WPs of EINS)

The E³UDRES² alliance aims to support the regions where the partner institutions are located, to overcome the challenges to become smart and sustainable regions. Therefore, it is necessary to foster activities which aim to maximize the societal and economic impact and value of the research results.

In WP5 of the Erasmus+ funded project, the focus is on “sharing and pooling knowledge, experience and good practice towards innovation for smart and sustainable European regions”¹¹.

Activities like bootcamps, hackathons and iResidency promote knowledge and technology transfer. They include external stakeholders acting as challenge owners to ensure the direct impact of the innovation activities within E³UDRES² on the regions (see also 5.2).

Maximizing the societal and economic impact and value of the research results is a main objective in the E.I.N.S. project. In phase 1 of the E.I.N.S. project, it was required to provide the following support:

- 9 startup/scale-ups
- 180 students trained
- 18 students mentored
- 18 academic staff trained
- 6 academic staff mentored
- 12 non-academic staff trained
- 6 non-academic staff mentored¹²

¹¹ E³UDRES² alliance (2020): Erasmus+ proposal, p.8. Internal document. Not published.

¹² E.I.T. RawMaterials (2021): HEI Grant Agreement No <10043>, p.5. Internal document. Not published.

As achieving those KPIs was mandatory for the prolongation of the E.I.N.S. project to phase 2, the E.I.N.S. was able to fulfil the KPIs in Phase 1 (October 2021 – March 2022) and to start into phase 2 (April 2022 – November 2023).

2 General Approach

This deliverable describes the analysis of the status of interaction within the E³UDRES² alliance after the first two years of collaboration. It specifically focusses on Research and Innovation activities.

The analysis was carried out in three dimensions:

- Dimension 1: Topics
- Dimension 2: Expertise
- Dimension 3: Collaboration

2.1 Dimension 1: Topics

As European funded initiative, the E³UDRES² alliance aims to follow the aims and missions of the European Union. Therefore, it is relevant that the alliance aligns its research and innovation (R&I) topics to the core European and international R&I policies. This dimension identified the relevant topics of the European and international R&I policies and face them with the topics identified within the E³UDRES² alliance.

Since the approval of the project plan of the E³UDRES² Ent-r-e-novators, the E³UDRES² alliance has already further developed its priorities and focus areas. This report includes the analysis of the initial topics as well as the new identified focus areas.

According to its mission, one of the core values is to foster “Cross-disciplinary Content”¹³. The starting point of this value is the assumption that, the challenges of the 21st century are complex and ask for inter- and cross-disciplinary solutions.

2.2 Dimension 2: Expertise

The E³UDRES² alliance connects experts from various disciplines to encourage cross-disciplinary innovation. All 6 initial E³UDRES² partners do have their own academic profile and join forces within E³UDRES² to overcome the grand societal, economical and environmental challenges in the 21st century. The founding E³UDRES² alliance also connects different types of higher education institutions like University of Applied Sciences (4) and research universities (2). Those six founding institutions cover the following academic fields:

- Business and Management
- Engineering
- Life Sciences
- Media & Design
- Social Affairs and Social Sciences
- Education

¹³ E³UDRES² alliance (no date): Long term & mission statement., p.10, <https://eudres.eu/assets/eudres-vision.pdf> (retrieved on 2023, September 23)

Due to the type of academic institution and the national regulations the partners are able to offer the following study programmes (see Table 1):

Table 1: Partners study programmes

Institution	Bachelor	Master	PhD	Continuous Education
STPUAS	X	X		X
IPS	X	X		X
VIA	X	X	X	X
UPT	X	X	X	X
UCLL	X			X
MATE	X	X	X	X

In order to evaluate if the expertise of the alliance fits to the chosen topics and grand challenges, two different approaches for analysing the expertise were done. One focusing on the people (bank of researchers) and one on the topics (analysis of publications).

2.3 Dimension 3: Collaboration

This dimension focuses on the analysis of efforts of the E³UDRES² alliance to encourage the cross-institutional cooperation of researchers of all E³UDRES² institutions.

Furthermore, E³UDRES² aims to strongly collaborate with external stakeholders, especially from the regions. The following analysis evaluates the actions taken to encourage the cross-disciplinary and cross-institutional collaboration and the networking of the (academic) experts in the various institutions. In addition to that, it summarizes the efforts to collaborate with regional stakeholders.

To analyse the dimensions listed above, the following methodologies were used:

- Literature Review & Technology Watch
- Analysis of expertise
- Analyse of collaboration

The following documents were mainly used to gather information for the analysis:

- Literature and policy documents
- E³UDRES long-term vision and mission statement
- Deliverables of E+ and E.I.N.S.
- Website (www.eudres.eu)

3 Literature Review / Technology Watch

3.1 Methodology

The main task of the literature review was to identify the core topics of relevant (European) policy papers with a special focus on higher education policies, innovation policy as well as the EU missions and UN sustainable development goals.

In a first step, the project team identified 15 papers which refer to the topics mentioned above. Those papers are¹⁴:

- EC (2020): Farm to Fork Strategy
- EC (2021): EU Biodiversity Strategy for 2030
- FAO (2019): Digital technologies in agricultural and rural areas
- EC (2021): A long-term Vision for the EU's Rural Areas
- EC (2022): 2022 Strategy Foresight Report – Towards a green & digital future
- EC: EU Missions in Horizon Europe
- EC: The New European Innovation Agenda
- EC (2019): The European Green Deal
- EC (2022): European Strategy for Universities
- UN: Transforming our world: The 2030 agenda for sustainable development
- EC: European Research Area Policy Agenda
- EC: Industry 5.0: A Transformative Vision for Europe
- EC: Knowledge ecosystems in the new ERA
- CoARA: Agreement on Reforming Research Assessment
- BOHEMIA

The documents were analyzed based on the following points:

- Check against E³UDRES² research networks, focus areas, Open Innovation Hubs
- Identification of main challenges in the literature
- Indication if the literature addresses any of the E³UDRES² alliance dimension (according to the proposal: Future casting regions, Educational I-Living Labs, R&I education and coaching of further (staff) training)
- Indication if the literature addresses any challenges related to the E.I.N.S. Open Innovation Hubs
- Indication if the literature addresses any topics covered in the existing E³UDRES² research networks
- Indication if the literature addresses any topics covered in the future focus areas
- Indication of topics which are mentioned in the literature but not covered by E³UDRES activities

¹⁴ The list of references is available in Annex

3.2 Results

When analysing against existing research networks, focus areas and Open Innovation Hubs, we found that there is a good percentage of literature treating the research areas of Circular Economy (~73%, 10 papers in the Figure 1). Around half of the papers analysed (~53%) treat the topic of Wellbeing & Active Ageing. The literature we chose for analysing treats in a lower proportion the area of Human Contribution to Artificial Intelligence (~33%).

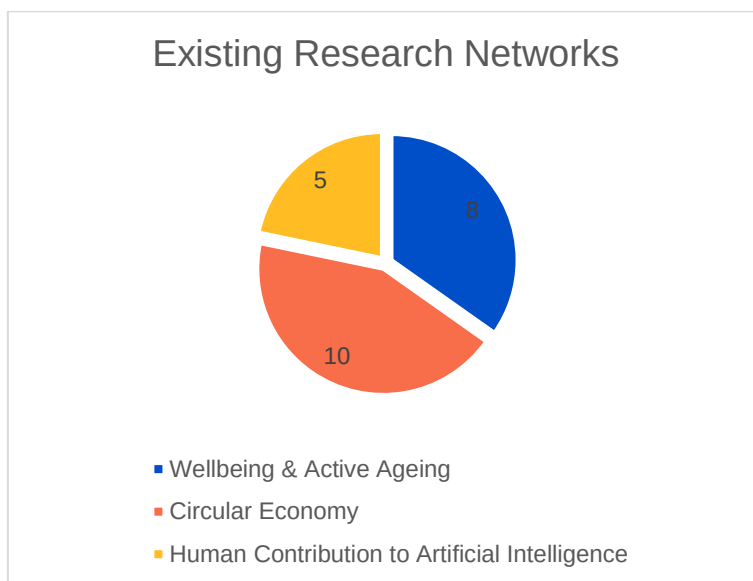


Figure 1: Existing Research Networks

In Figure 2 we can see the results obtained when analysing the future E³DURES² focus areas. Resilient Economy & Innovation for Regions is the most encountered, ~73%, followed by both Health, Wellbeing and Social Inclusion for Regions and also Digital Solutions & (Applied) Deep Tech Regions, appearing in ~60% of analysed literature. Creative Industries for Regions' Identity seems the least encountered in the literature, with only ~33% appearances.



Figure 2: New Focus Areas

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Next, we compared the literature with the newly formed E.I.N.S. Open Innovation Hubs, and found that Food is the most treated topic, in ~67% of cases. Other well researched areas seem to be Smart and Sustainable Working and Learning Environments and also Smart and Sustainable Cities, Regions and Villages, both present in around 60% of the literature analysed. Digital Technologies & Advanced Manufacturing is a topic encountered in ~53% of the literature. Less focus seem to have Digital Health and Social Innovation (40%) and Creative Industries & Digital Media (33%), as it can be seen in Figure 3.

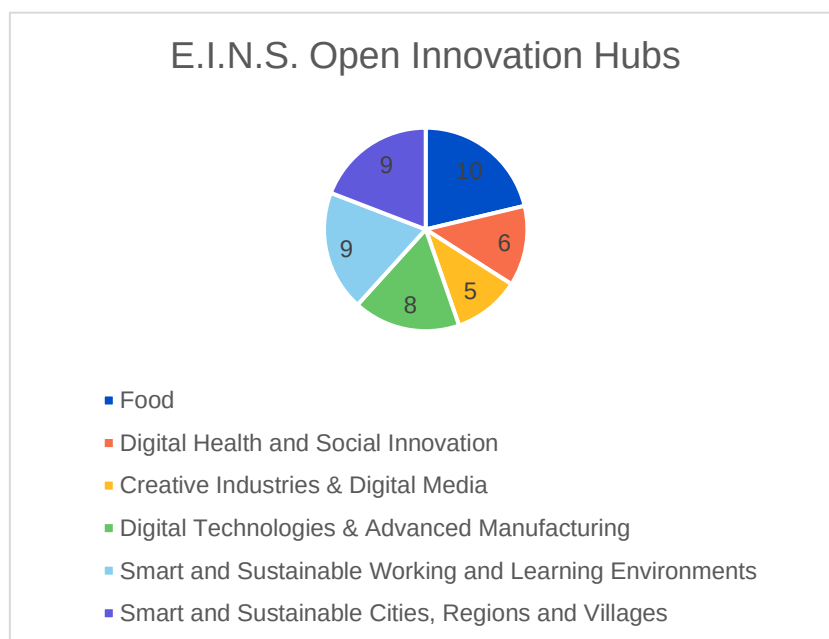


Figure 3: E.I.N.S. Open Innovation Hubs

When checking the literature against the E³UDRES² dimensions, the results were almost identical, as all E³UDRES² alliance dimensions seem to have more or less the same number of appearances in the analysed literature. Activities to maximize the societal and economic impact and value of our research results and Open innovation hubs appear in ~67% of the literature and the others in ~60%: Future casting regions, Educational I-Living Labs, R&I education and coaching of further (staff) training, Research networks/projects, and Connected research and innovation. See Figure 4.

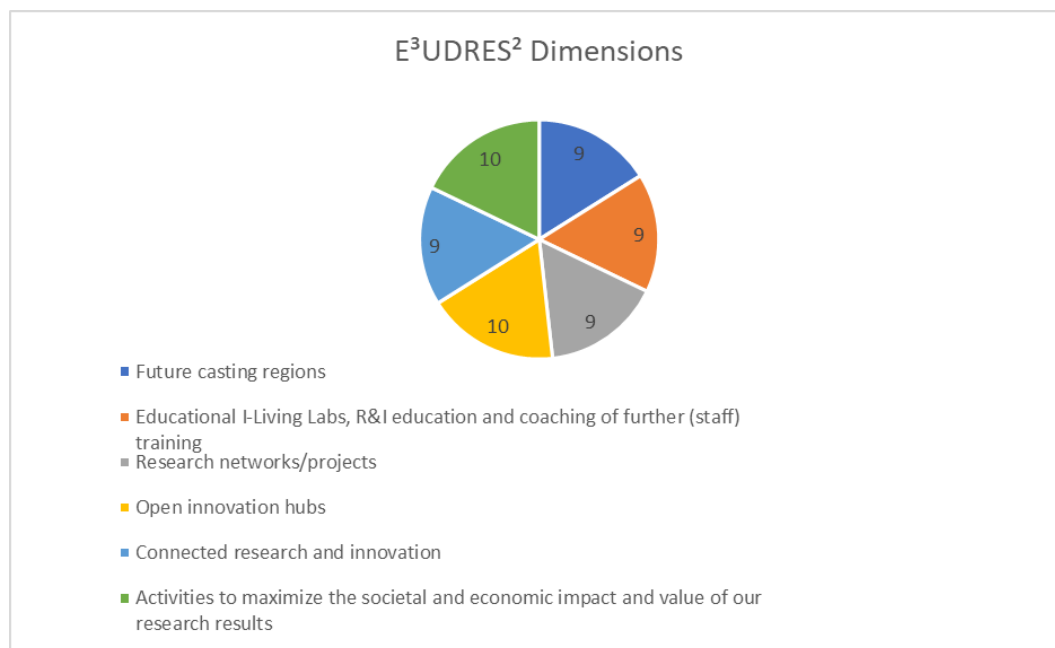


Figure 4: E³UDRES² alliance dimensions

The E³UDRES² alliance covers main challenges and research topics mentioned in the relevant literature. However, the following topics were identified at the literature review and are not yet part or visible of the E³UDRES² activities:

- Cheap renewable Energy
- Defeating communicable Diseases
- Emotion Intelligence Online
- Human organ replacement
- Low carbon economy
- Material resource efficiency
- Precised Medicine

4 Assessment of Expertise

4.1 Methodology

The assessment of the expertise within the E³UDRES² alliance is based on two approaches:

- Analysis of the bank of researchers
- Analysis of publications

4.1.1 Analysis of Bank of Researchers

The bank of researchers is the main database of researchers involved in the research activities within the E³UDRES² alliance. Initially it was handled as excel-files shared within the work package 4 of the Erasmus+ funded project.

Later on, the database was added as an additional feature on the E³UDRES² website (<https://eudres.eu/researchers>). Researchers need to create an account on the website to be able to fill in their profile. The profiles need to be created by the researchers themselves and voluntarily. There is no automatic process to publish the profile of the researchers on the E³UDRES² website.

The profile includes information on:

- Main areas of research
- Areas of research (link to the E³UDRES² research networks)
- Academic background
- Research projects
- Contact Details

On 13 January 2023, the agency which hosts the E³UDRES² website offered a download of all data available from the bank of researchers. The download only includes information which was anyway available public on the website. No additional (confidential data) was downloaded.

4.1.2 Analysis of Publications

The analysis of publications was conducted using SciVal. It is an Elsevier tool which allows to visualize organization's research performance, benchmark it against peers, and identify emerging research trends. It supposes to offer insights to enrich local knowledge, support research evaluation and research strategy. Those were the reasons under decision to use the tool.

There were two studies made using SciVal. The first one was conducted in April 2023, and was more general and identified:

- Publication shares by Subject Area

- Topic Clusters
- Keywords

The second SciVal study was conducted in June 2023, and:

- Drew a Spider Diagram to connect E³UDRES² initial research direction, E.I.N.S. Open Innovation Hubs and E³UDRES² 2.0 mission-based research directions with appropriate research results provided by SciVal
- TOP5 researchers research field corresponding to E³UDRES² initial research direction, E.I.N.S. Open Innovation Hubs and E³UDRES² 2.0 mission-based research directions

4.2 Results

4.2.1 Analysis of Bank of Researchers

The Research Networks serve as the primary HR base for E³UDRES² association's research activities. Researchers who work in these networks are listed in the Bank of Researchers database, which is publicly accessible at <https://eudres.eu/researchers> and is based on voluntary registration. All interested researchers can apply for inclusion in the Research Networks by registering through <https://eudres.eu/register>, which expresses their intention to participate in future research.

This subsection analyses the number of currently registered researchers in the database by institutions.

Total number of researchers in Research Networks: 164

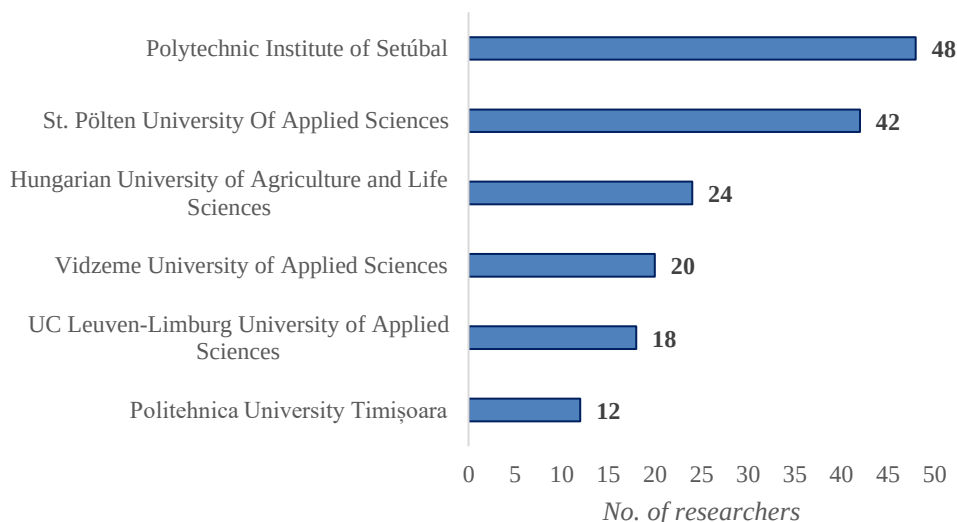


Figure 5: Distribution of researchers by HEIs

Figure 5 indicates that the number of researchers from partner institutions registered in RNs is still relatively low, and there are significant variations in participation activity between institutions. Since each institution has the ability to link its own research profile to the research network themes, it is reasonable to launch a

more intensive and targeted campaign to ensure that all potentially interested researchers are correctly informed about the opportunities for cooperation offered by the research networks. On the other hand, the relatively lower number of researchers aligns with the current life cycle phase of research networks. In the start-up-growth phase of networks, a small but committed and well-prepared team of "champions" of the topic can be an essential asset to drive and facilitate the development process. By building on the work of these champions, it is then possible to scale up in a stable way. It is therefore worth finding a balance between growth and excellence in the further development of research networks.

The registered researchers are distributed as follows:

- Number of researchers participating in a single research network: 149
- Number of researchers simultaneously participating in two research networks: 14
- Number of researchers simultaneously participating in three research networks: 1

Most researchers participate in a single research network, which allows everyone to focus effectively on a research topic of their choice. The 15 researchers who are registered in more than one research network could be key players in exploiting synergies and should be interviewed about the potential for collaboration and joint research projects between research networks.

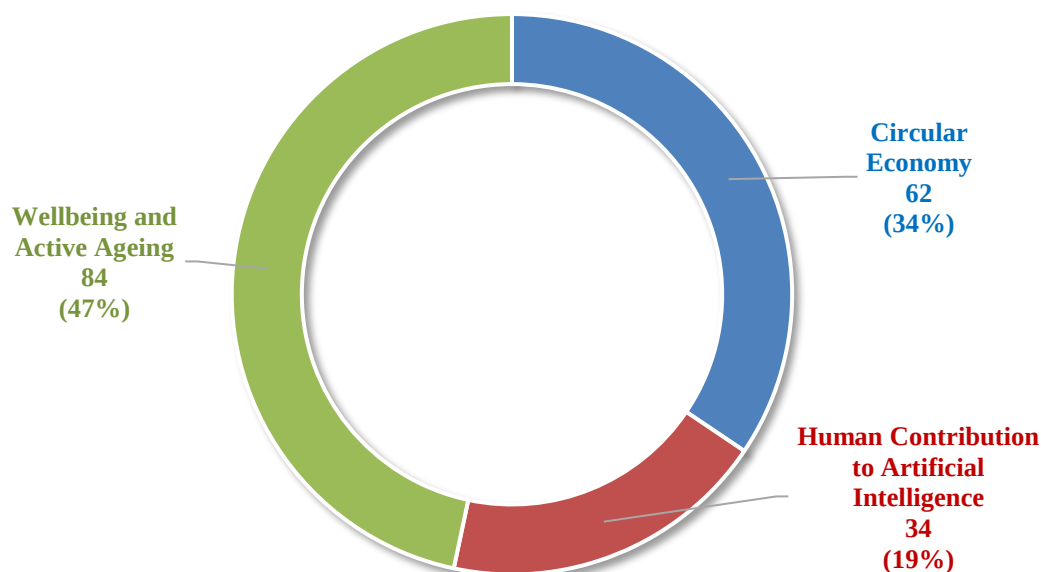


Figure 6: Distribution (number and %) of researchers by research networks

The proportions depicted in Figure 6 are consistent with the complexity and broadness of the three areas. Wellbeing and Active Ageing is clearly the most general research area covering most of the sub-themes. Accordingly, almost half of the registered researchers could be linked to this topic.

The Circular Economy covered a further third of the total number of researchers. Research topics in this area are found equally in STEM, economics and social sciences.

The number of researchers in the 'Human Contribution to AI' research network is limited despite the growing importance and research potential of the field. The proportion of participants is particularly small considering the relevance of human-AI collaborative projects both in the global research community and in the industry. A crucial strategic challenge for the Alliance is to improve the research HR through both external engagement and internal training in this specialized but promising area.

The participation rates of individual Institutions in each research networks (Figure 7) shows a high degree of variability.

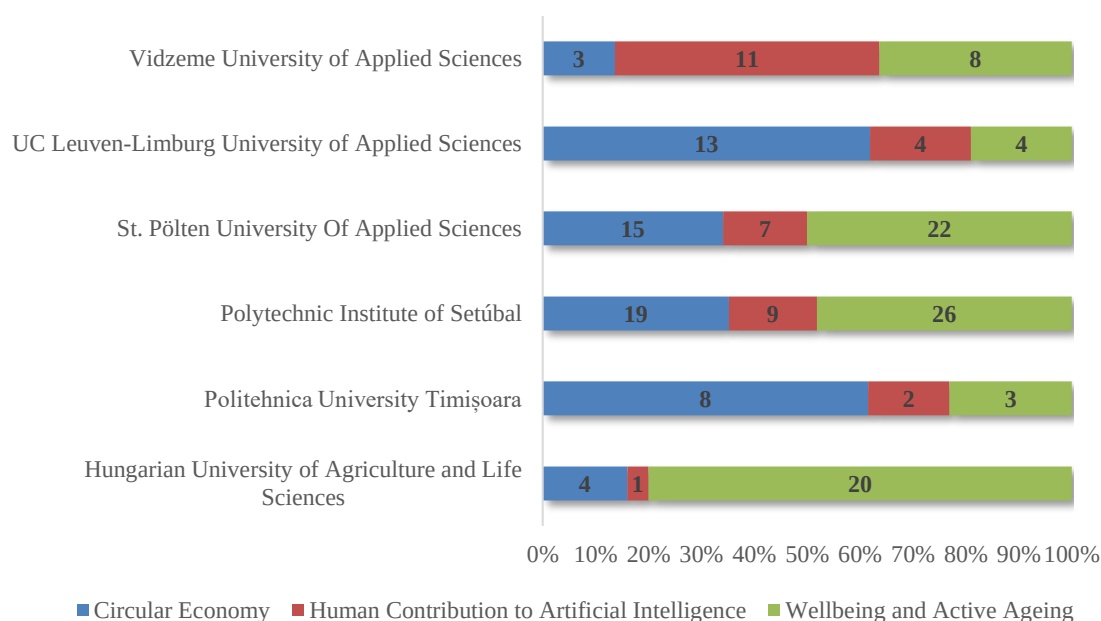


Figure 7: Distribution (%) of researchers by research networks at different HEIs

According to the statistics, researchers from MATE are highly involved in the Wellbeing and Active Ageing field, with almost 80% of registered researchers belonging to that area. Given that MATE is an institution with a focus on agriculture, this over-representation is somewhat understandable. However, the number of participants registered in the Circular Economy research networks appears to be under-represented in relation to the university's profile. This is surprising given the existing knowledge in this area, and it presents an opportunity for rapid growth. In AI, MATE has limited potential for significant future growth. However, there is potential to increase the number of research networks participants in specific agricultural areas such as precision farming and data-driven farming.

4.2.2 Analysis of Publications

Based on SciVal (using scientific publications indexed in SCOPUS) analysis (see Figure 8) it was possible to identify that the largest subject areas are:

- Engineering (29,5%)
- Agriculture and Biological Sciences (22,4%)
- Computer Science (18,6%)
- Environmental Science (15,7%)

- Material Science (12,5%)
- Social Science (12,1%)

Nevertheless, the wide range of further disciplines and various expertise, shows the high potential of interdisciplinary collaboration.

The list of subject areas also includes life sciences (e.g. Medicine, Biochemistry and Molecular Biology, natural sciences (e.g. Mathematics, Physics and Anatomy, Chemistry, Chemical Engineering) and business studies (e.g. Economics, Econometrics and Finance; Business, Management and Accounting).

The analysis of the publications related to topic clusters is shown in Figure 9.

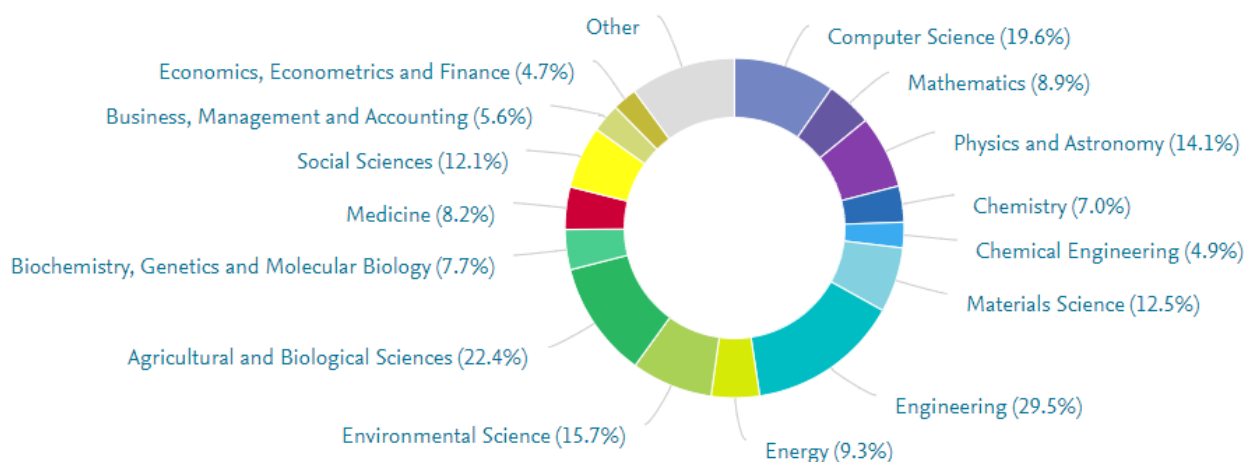


Figure 8: Publication share by Subject Area

The 5 largest topic clusters based on 2019-2022 SCOPUS data are (see Figure 9):

- Decay, Quarks, Neutrons
- Electronic Potential, Electronic Inverters, DC-DC Converters
- Algorithms, Computer Vision, Models
- Industry, Innovation, Entrepreneurship
- Industry, Research, Marketing

Studying Topic Clusters under science fields, for example, Social Sciences (see Figure 10), the data reflected that a large part of Social Science related articles are interdisciplinary and simultaneously counted in different science fields as Medicine, Engineering, Computer Science, etc.

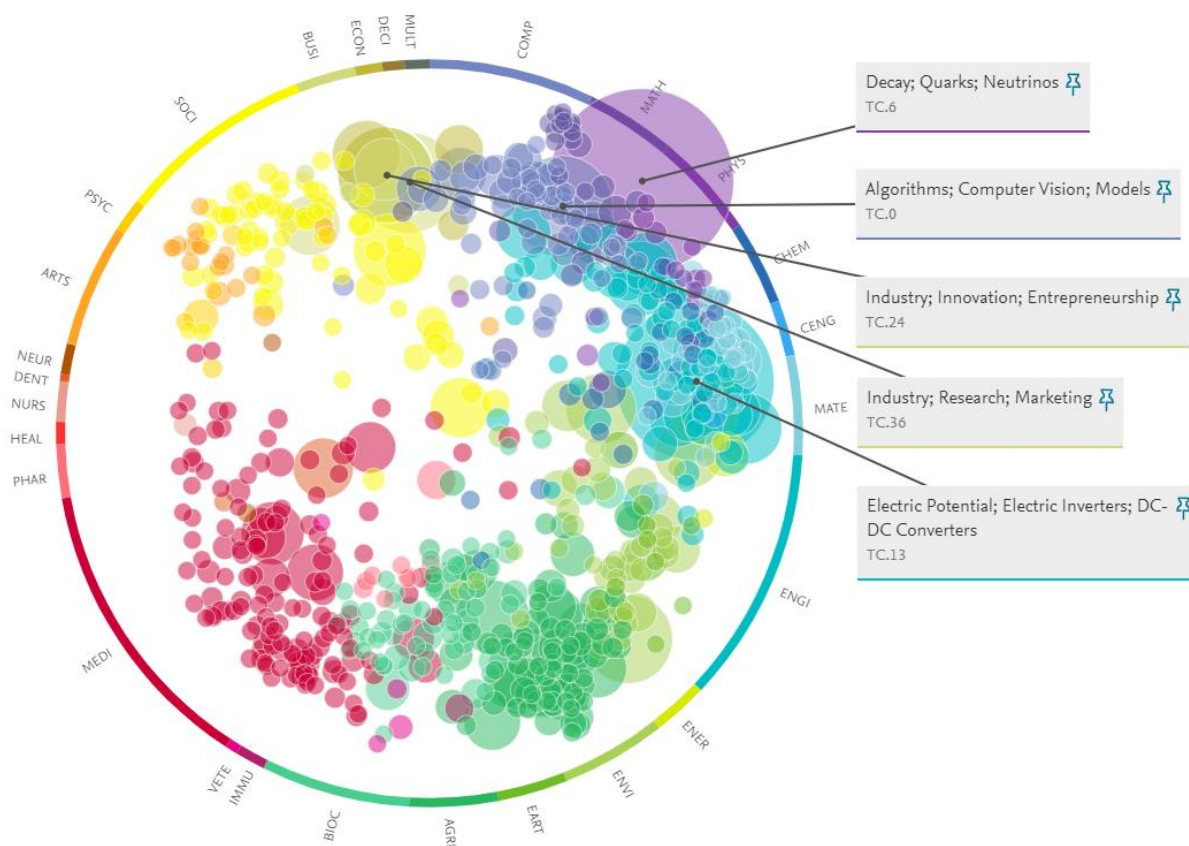


Figure 9: Topic Clusters

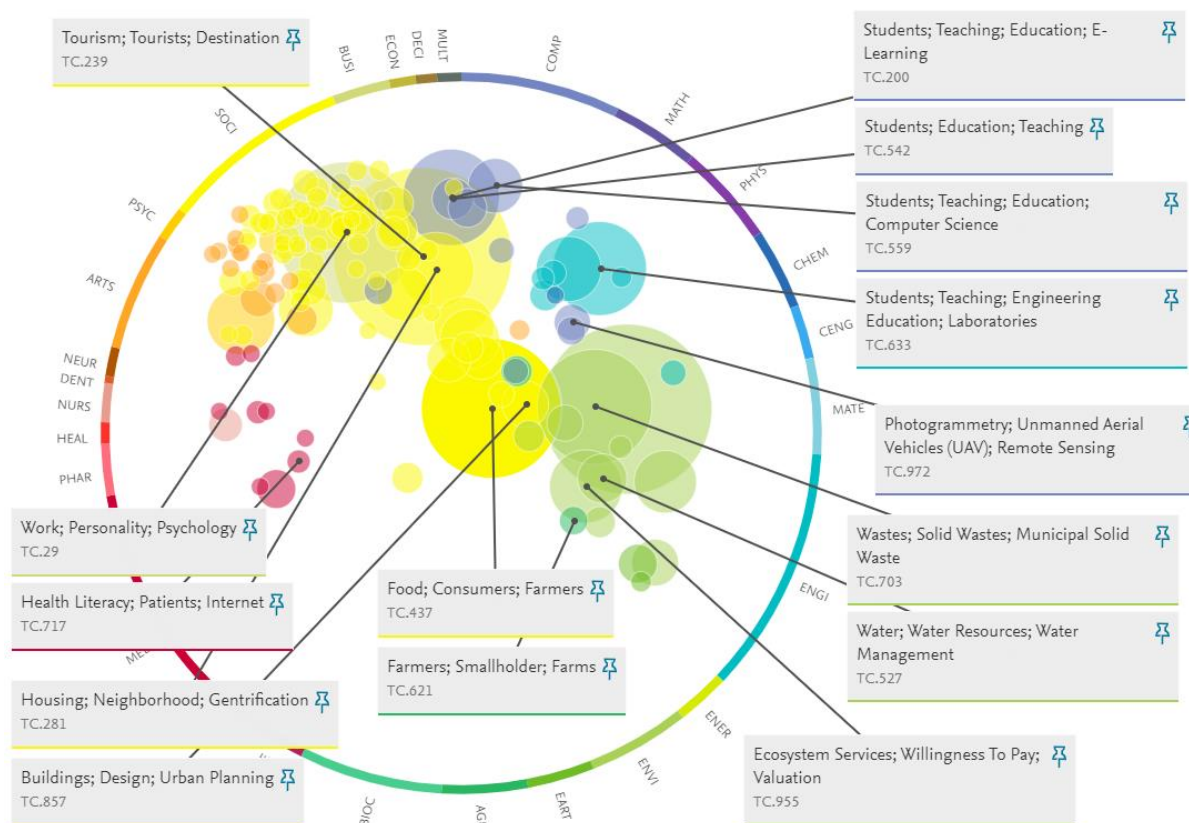


Figure 10: Topic Clusters. Social Sciences

To finalize the first SciVal study, Top 1% Topic Clusters by prominence and keywords under each of the largest 5 subject areas (see Figure 8) and per institution were studied. The idea of this operation was to see if E³UDRES² institutions in the last three years have worked on topical research topics or not, as well as what are the topics. Knowing the topics, it is possible to look for researchers who have worked on the publications to address them and involve in new research project application preparation. Conducting research in topical areas might increase the number of citations, thus contributing to recognition and impact.

The main objective on the second SciVal study was to reveal which 5 researchers of each E³UDRES² institution, based on scholarly output in the subject area, most recent publication, number of citations, and *h*-index, are the most important in each of 5 largest subject areas (see Figure 8). Knowing the names, again, would allow addressing specific researchers to involve them in, for example, research application preparation, knowing that he or she is currently working in the field, can produce research results, results can create an impact, because are cited.

It turned out, and it may be the most important conclusion so far, that it is not possible to rely only on SCOPUS data, because it doesn't show the whole picture, in cases you may even call the data biased. This issue is related with individual publicity strategy. It is related to the fact that not all publications are indexed in SCOPUS, but are indexed in other databases or included in scientific monographs or textbooks which frequently are not indexed at all.

As it is time-consuming to collect all the information about the scientific publications to be analysed, and it would take a lot of effort to do the job manually or developing a system to draw the calculations similar to ones provided by SciVal, the conclusion is that the list of researchers needed to find the most appropriate researchers for E³UDRES² research missions should be developed in a close collaboration with departments of human resources or R&D support units. The right method to do so might be developed during this project in close collaboration with WP6.

Additionally, on the second SciVal study, a Spider Diagram was drawn to connect E³UDRES² initial research directions, E.I.N.S. Open Innovation Hubs and E³UDRES² 2.0 mission-based research directions with appropriate research results provided by SciVal (Figure 11).

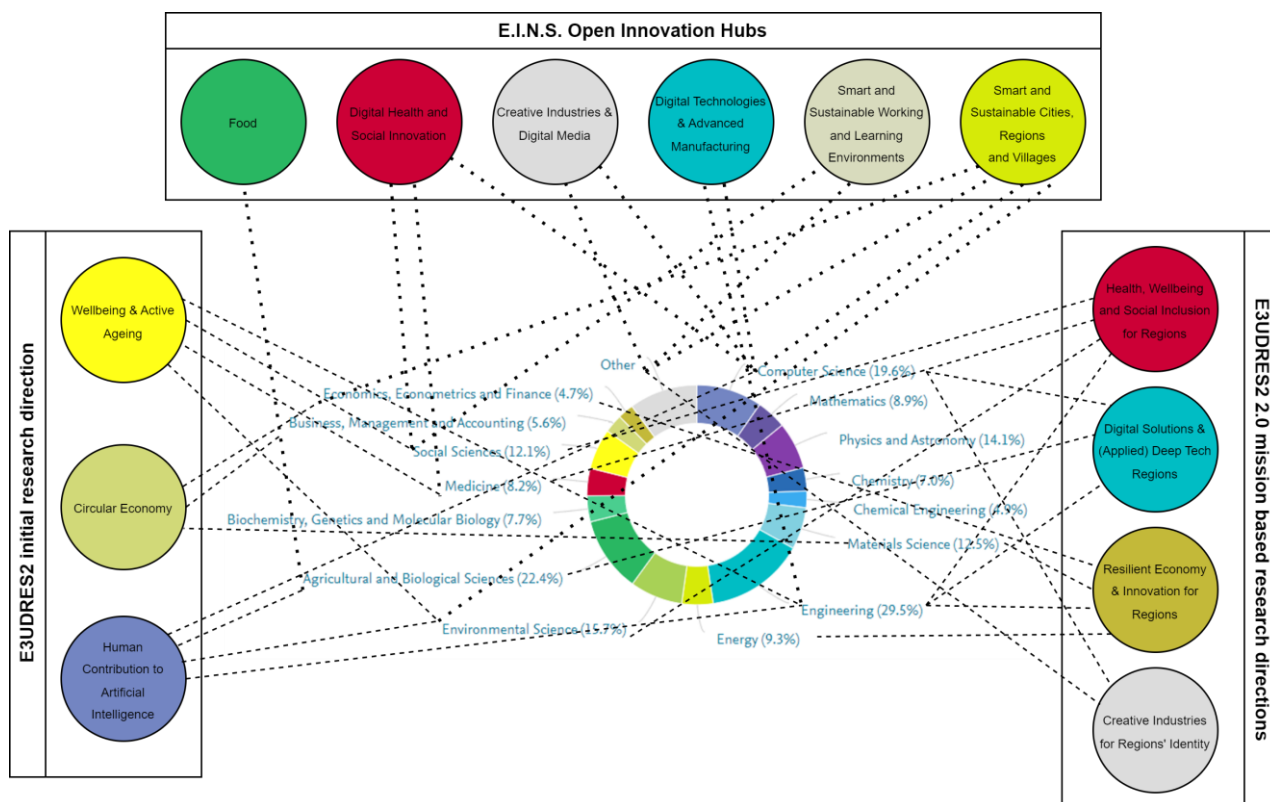


Figure 11: Interlinks between E³UDRES² research networks, E.I.N.S. Open Innovation Hubs, E³UDRES² 2.0 mission based research directions

The diagram shows, that the E³UDRES² network involves the relevant disciplines which are interlinked with the research networks, the E.I.N.S. Open Innovation Hubs as well as the new research directions.

5 Assessment of Collaboration

5.1 Cross-University Collaboration

According to its mission, the E³UDRES² alliance “provides a platform for collaborative innovation for multidirectional, cross-disciplinary, cross-sectoral, cross-actor knowledge exchange” (E³UDRES² mission, p.7).

The first year of the E³UDRES² alliance was mainly influenced by the COVID-19 pandemic. To support getting to know each other and therefore to support the (future) collaboration in the field of research and innovation, the activities were organized in an online-setting, using different tools.

5.1.1 Research I-living labs

“Living labs are user-driven and open-innovation infrastructures (virtual or physical) that involve all relevant stakeholders in the design, development, testing, redesign and/or validation process of a novel solution, product or service, while integrating research and innovation processes in real-life communities and settings.” (Deliverable 4.2, Erasmus+). In total, 2 research I living labs took place in the first two years of collaboration within the E³UDRES² alliance. The first living lab was organized fully online (due to the COVID-19 pandemic). The second living lab was organized as hybrid event, with possibility to participate on-site at IPS. 67 participants (including researchers, students and stakeholders) took part in the second research living lab. The detailed programme of the event was reported in Deliverable 4.8 Erasmus+.

5.1.2 Research Networks

As described in 1.1, the research networks aim to connect researchers from various fields and institutions to work on interdisciplinary research questions. In first two years of the E³UDRES² alliance, the following three interdisciplinary research networks were set up as described in 1.1.

5.1.3 Market of Researchers

The market concept was developed within the Erasmus+ funded project and is driven by the idea of a fair for researchers and stakeholders. The informal setting should open the opportunity for innovative talks, getting to know each other, getting to know the individual research expertise and challenges.

The market of researchers mainly focusses on the linking of already participating researchers (bank of researchers) from the individual institutions at the research networks with newcomers.

Initially, both markets were designed as on-site events. However, due to the COVID-19 pandemic, the markets were organized as online events using the online-platform “wonder.me”.

In the first two years of collaboration within the E³UDRES² alliance, 2 markets of researchers were organized. They are described in detail in deliverable 4.6.

In the first market of researchers, 28 researchers participated and in the second market of researchers 18 researchers participated.

5.1.4 Joint (research) project proposals

The aim of the work package 4 within the Erasmus+ funded project is to promote the identification of research questions and development of joint project proposals within the research networks. The bank of research proposals (described in deliverable 4.7 describes the status of joint research proposals by June 2021. Beside the three internal projects (see chapter 1.1), one additional proposal within the ERA-Net programme was submitted by the Circular Economy network including 5 out of 6 E³UDRES² partners and 8 external stakeholders. By September 2022, one additional ERA-Net proposal was submitted by the Circular Economy network involving 3 E³UDRES² partners and 6 external stakeholders. In addition to that, the E³UDRES² alliance has submitted proposals to 3 Horizon Europe calls (2 proposals within cluster 6, 1 proposal within cluster 5) involving at least 3 E³UDRES² partners.

In addition to the joint research proposals, the E³UDRES² alliance submitted 2 innovation project proposals which were approved in 2022:

- Accelerate_FutureHEI (Project 101095083) (HORIZON WIDERA) (Starting Date: 1.1.2023)
- DIGIHealth UASHome Incubators Boost Programme (Project 2022-1-AT01-KA220-HED-000089261) (Erasmus+ Strategic Partnership) (Starting Date: 1.9.2023)

5.2 Collaboration with Regional Stakeholders

5.2.1 Market of Stakeholders

As an engaged university alliance, the alliance not only collaborates not only within the alliance but also with extern (regional) stakeholders.

The market of stakeholders focuses on promoting the networking of researchers with external stakeholder and was organized in the same way as the market of researchers. At the first market of stakeholders (described in deliverable 4.6 12 researchers from the bank of researchers back then, 2 students as well as 6 regional stakeholders from 4 different countries participated.

5.2.2 Regional Stakeholder Workshops

In WP2 of the Erasmus+ funded project, the E³UDRES² alliance partners had to organize 3 regional stakeholder workshops for each partner. The aim of the regional stakeholder workshops is to use future sighting methods, which were developed in the future casting exercise in WP2 of the Erasmus+ funded project, to integrate the external stakeholders view in the development of a future scenario of future universities.

5.2.3 Challenge Owners

E³UDRES² aims to strengthen the collaboration with regional stakeholders by integrating as much as possible in its activities. Regional stakeholders usually act as challenge owners in research and innovation education activities like the i-living-lab, bootcamp, hackathon, etc. To get in contact with the regional stakeholders, the individual E³UDRES² universities try to set up a network of partners and regularly update them with information on E³UDRES² and asking them for challenges to submit for the R&I education activities.

External stakeholders can also hand in their challenge through the E³UDRES² website (https://eudres.eu/get-connected#participate_as_local_institution_business). They can also act as host for activities (e.g. the iResidencies).

6 SWOT Analysis

The approach to perform the SWOT analysis is supported by the STEEP analysis concept.

The STEEP analysis is a strategic planning method that helps organizations understand their environment and challenges. It takes into account different elements which are represented by the acronym: Social, Technological, Economic, Environmental and Political.

- Social: Analysing factors related to society, including demographic changes, cultural trends, lifestyles, and social values. For example, how are consumer needs and preferences changing?
- Technological: Understanding the impacts of technological developments, including innovations, automation, IT advancements, and technological competitiveness. What new technologies are emerging, and how do they affect the market?
- Economic: Analysing the economic environment, including inflation, unemployment, economic growth, and currency market fluctuations. How do these factors affect the financial stability and opportunities of the business?
- Environmental: Evaluating ecological and environmental factors, such as climate change, sustainability of energy resources, and environmental regulations. What environmental challenges need to be addressed?
- Political: Analysing the political and legal environment, including government policies, regulatory changes, and geopolitical factors. How can political decisions and changes impact the business?

The STEEP analysis methodology allows organizations to view their environment in a comprehensive manner and facilitates long-term strategic planning. The analysis helps in capitalizing on favourable opportunities and avoiding threats for the organizations.

In our work, we initially conducted raw analysis of various dimensions using Eurostat's relevant sources. The results of this analysis have been compiled at the following online graph:

<https://coggle.it/diagram/ZKrpqpDbJNK9DezK/t/steep-analysis-working-graph>

In the second step, the raw results were summarised into main trends, the results of which are presented in the following table.

Table 2: Opportunities and threats

Environmental dimension	Opportunities	Threats
Political	SDG targets are clearly defined and monitored, with significant demand and support from the EU institutional system for research to achieve them. A decrease in crime and violence within the EU provides a stable and safe environment for international projects. The EU's low corruption rates on a global scale are beneficial for the successful implementation of development projects.	Confidence in the institutions of the European Union varies across different countries and has decreased since 2004. This decline in trust may also affect projects that are supported by EU funds. In the last 20 years, the public debt of the EU-27 has risen considerably, creating a risk for research projects that rely on public funding.
Social	Increasing immigration creates new opportunities for the human research base and the social market of research results. Women's increasing role and empowerment has grown rapidly in recent decades, unlocking significant economic and scientific potential. Increasing urbanisation and agglomeration, leading to positive externalities that can also be exploited in research projects (e.g. knowledge spillover, collaboration, resource pools). Increasing societal expectations for sustainable and innovative technologies.	The European Union is expected to experience a decline in population and an increase in ageing in the coming years. These changes will likely have a significant impact on the research market. Dealing with the challenges of mass immigration in some countries will require significant resources, which may have to be diverted from other sectors. Urbanisation and agglomeration can draw significant resources away from research institutions that are embedded in rural areas.
Economic	The growth in GDP per capita and employment provides a growing market and financing base for R&D. In the EU, the business sector as a whole has seen rising profit margins in recent years. This increases the R&D potential of companies. Households' appetite for long-term investment is on the rise, which is good for innovative organisations.	Growing inequalities are hampering the smooth and unhindered diffusion of innovations and technologies. Crises in energy markets, sometimes with extreme volatility, negatively affect the operation of research infrastructures. Declining household savings rates indirectly reduce the financial resources available for research and development activities. Industrial production and investment are increasingly sensitive to various crises. This also makes corporate R&D activity unpredictable. Household consumption and incomes have stagnated in recent years, which may have a knock-on effect on high-tech product markets.

Environmental dimension	Opportunities	Threats
Environmental	Climate change will continue to drive the need for sustainable research and technologies. Demand for solutions that increase the efficiency of renewable energy sources is growing. Demand for sustainable food production systems and technologies is growing rapidly. Demand for new technologies for waste reduction and recycling efforts is on the rise.	Climate change and the energy crisis are also driving up R&D costs. Extreme weather events are also emerging as a new risk for the operation of research institutions.
Technological	In the EU, business spending on R&D is growing rapidly, the number of innovation projects and business digitalisation is also increasing radically. The Internet of Things is driving demand for new technologies in both the corporate and household sectors. The international market for high-tech products continues to grow.	-

The Strengths and Weaknesses elements are summarizing the results of the literature review and technology watch, analysis of bank of researchers and publications and analysis of the collaboration activities and are described in the table below.

Table 3: Strengths and weaknesses

Environmental dimension	Strengths	Weaknesses
Topics	The E³UDRES² alliance is working on relevant topics addressed in EU policy documents. (see literature review) The E³UDRES² alliance is focussing on new interdisciplinary topics, which would not be addressed by the individual institutions.	Broad or interdisciplinary research network topics make it difficult for the individual researcher to link her/his own research to the research networks. Missing link from the individual research topics to the broad research network topics There is no research and innovation strategy for the alliance at the moment.
Experts	The E³UDRES² alliance has the potential to address a critical mass of experts to work on interdisciplinary research questions (which would not be able for the individual institutions). The E³UDRES² alliance includes all internal experts (from junior to senior, from academic staff to administrative and management staff, from students to alumni). Research and innovation opportunities are also offered to students. Experts (both internally and externally) are already found for the three existing research networks.	There is still a low engagement of researchers participating in the E³UDRES² activities compared to the overall number of researchers within the E³UDRES² alliance. Not all institutions within the alliance do have master programmes. Not all institutions within the alliance do have PhD programmes.
Collaboration	Opportunities and formats for cross-disciplinary and cross-institutional collaboration are already established and are promoted (research living labs, international engagement circuits, i living labs). The setting up of research networks (with identified coordinators) support the networking of the individual researchers. The integration of external stakeholders is a core element of all E³UDRES² research and innovation activities.	Structure and processes for research support within the alliance (e.g. identification of relevant calls, etc.) are missing. There is still low experience of infrastructure sharing within the alliance. There is no concept for research staff exchange developed. There are very few joint publications at the moment.

ANNEX | References

- Literature Review Documents

Title	Author	Source
Farm to Fork Strategy	EC (2020)	https://food.ec.europa.eu/system/files/2020-05/f2f_action-plan_2020_strategy-info_en.pdf
EU Biodiversity Strategy for 2030	EU (2021)	https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en#documents
Digital Technologies in agriculture and rural areas	FAO (2019) – Trendos, Varas & Zeng	https://www.fao.org/3/ca4887en/ca4887en.pdf
A long-term Vision for the EU's Rural Areas – Towards stronger, connected, resilient and prosperous rural areas by 2040 – Commission staff working document, part 3/3	European Commission (2021)	https://ec.europa.eu/info/sites/default/files/strategy/strategy_documents/documents/ltvra-c2021-345-documents-part3_en.pdf
2022 Strategy Foresight Report	European Commission (2022)	https://data.europa.eu/doi/10.2760/977331
EU Missions in Horizon Europe	European Commission	https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe_en
The New European Innovation Agenda	European Commission	https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe_en
The European Green Deal	European Commission (2019)	https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF
European Strategy for Universities	European Commission	https://education.ec.europa.eu/sites/default/files/2022-01/communication-european-strategy-for-universities-graphic-version.pdf
Transforming our world: The 2030 agenda for sustainable development	UN	https://sdgs.un.org/sites/default/files/publications/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf
European Research Area Policy Agenda	European Commission	https://era.gv.at/public/documents/4552/ec_rtd_era-policy-agenda-2021.pdf
Industry 5.0: A Transformative Vision for Europe	European Commission	https://www.horizon-europe.gouv.fr/sites/default/files/2022-01/industry-5-0-pdf-5324.pdf

Title	Author	Source
Knowledge ecosystems in the new ERA – A monitoring methodology on institutional change in the area of R&I at universities in Europe	European Commission	https://op.europa.eu/de/publication-detail/-/publication/c09fae06-6581-11ed-9f85-01aa75ed71a1
Agreement on Reforming Research Assessment	COARA.eu	https://coara.eu/app/uploads/2022/09/2022_07_19_rra_agreement_final.pdf
BOHEMIA		https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/foresight/bohemia_en

▪ Deliverables Reviewed for the Analysis

Project	Deliverable Nr.	Deliverable Title
E³UDRES² (Erasmus+ funded)	D2.1	E³UDRES² future-casting training
E³UDRES² (Erasmus+ funded)	D2.8	Regional Stakeholder Workshops 1
E³UDRES² (Erasmus+ funded)	D2.9	Partner visits to regional Stakeholder Workshop 1
E³UDRES² (Erasmus+ funded)	D2.10	Regional Stakeholder Workshops 2
E³UDRES² (Erasmus+ funded)	D2.12	Regional Stakeholder Workshops 3
E³UDRES² (Erasmus+ funded)	D3.2	Staff training blueprint
E³UDRES² (Erasmus+ funded)	D4.4	3 initial Bank of Researchers + Initial Bank of Stakeholders + Initial Bank of Students
E³UDRES² (Erasmus+ funded)	D4.6	3 Scientific "Market of Researchers" + "Market of Stakeholders"
E³UDRES² (Erasmus+ funded)	D4.7	3 "Banks of project proposals"
E³UDRES² (Erasmus+ funded)	D5.2	1st E³UDRES² Hackathon
E³UDRES² (Erasmus+ funded)	D5.4	1st E³UDRES² boot camp
E³UDRES² (Erasmus+ funded)	D5.5	1st E³UDRES² Innovation Residencies
E³UDRES² (Erasmus+ funded)	D5.8	2nd E³UDRES² Hackathon
E.I.N.S. (EIT funded)	D5.8	Phase 1 Implementation Strategy
E.I.N.S. (EIT funded)	D6.3	Coaching, Training and Mentoring Plan

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